

# **CONTENTS OF ANIMAL FEED SCIENCE AND TECHNOLOGY, VOLUME 29**

**VOL. 29 NOS. 1-2**

**MAY 1990**

The feeding value of cereal straws for sheep. I. Wheat straws W.J. Wales, P.T. Doyle and G.R. Pearce (Parkville, Australia) .....	1
The feeding value of cereal straws for sheep. II. Rice straws P.T. Doyle and S. Chanpongsang (Parkville, Australia) .....	15
The feeding value of cereal straws for sheep. III. Supplementation with minerals or minerals and urea P.T. Doyle and S.B. Panday (Parkville, Australia) .....	29
Trypsin inhibitors in peas: varietal effect and influence on digestibility of crude protein by growing pigs P. Leterme, Y. Beckers and A. Théwis (Gembloux, Belgium) .....	45
<i>Citrullus colocynthis</i> seed meal as a protein supplement for Najdi sheep in northern Saudi Arabia A.N. Bhattacharya (Al-jouf, Saudi Arabia) .....	57
Leucaena leaf meal in the diet of growing rabbits: evaluation and effect of a low-mimosine treatment B. Tangendjaja, Y.C. Rahardjo and J.B. Lowry (Bogor, Indonesia) .....	63
The effect of sodium hydroxide treatment on the chemical composition, digestibility and digestible energy content of wheat, barley and oat straws A.R. Moss, D.I. Givens and J.M. Everington (Stratford upon Avon, U.K.) .....	73
Nutritional value of some Czechoslovak varieties of wheat, triticale and rye J. Heger, M. Salek and B.O. Eggum (Tjele, Denmark) .....	89
Effects of various combinations of urea, soya-bean meal and maize in alkaline hydrogen peroxide-treated wheat straw-based diets on ruminal bacterial fermentation F.J. Bas, M.D. Stern (St. Paul, MN, U.S.A.) and G.C. Fahey, Jr. (Urbana, IL, U.S.A.) ....	101
Studies on the ammoniation of sugar-cane bagasse by urea. Effects of moisture, urea levels, urease source and treatment periods on composition, in vitro dry matter digestibility and evolution of ureolytic bacteria P. Hassoun, F. Geoffroy, G. Saminadin, P. Prior and M. Beramis (Pointe à Pitre, Guadeloupe) .....	113
The effects of bale density, type of binding and storage surface on the chemical composition, nutrient recovery and digestibility of large round hay bales J.R. Russell, S.J. Yoder and S.J. Marley (Ames, IA, U.S.A.) .....	131

## **Short Communications**

Influence of temperature and physical form of turnips on the metabolic cost of ingestion B.A. Young and A.M. Nicol (Edmonton, Alb., Canada) .....	147
Effect of defaunation on fibre digestion in sheep given two isonitrogenous diets K. Ushida (Kyoto, Japan) and J.P. Jouany (Ceyrat, France) .....	153
Effects of feed on the composition of the rumen ciliate protozoal population in cattle and its relationship to cellulolytic ciliate protozoa H. Kudo, K.-J. Cheng (Lethbridge, Alb., Canada), S. Imai, S.S. Han (Tokyo, Japan) and J.W. Costerton (Calgary, Alb., Canada) .....	159

## Book Reviews

Non-ruminant feeding .....	171
Vertebrate digestive system .....	173
Goat meat production .....	174
Lignocellulosics .....	176

## VOL. 29 NOS. 3-4

JUNE 1990

## Review

Effect of processing on antinutritional factors and protein nutritional value of dry beans ( <i>Phaseolus vulgaris</i> L.). A review A.F.B. van der Poel (Wageningen, The Netherlands) .....	179
Comparison of four techniques for predicting digestibility of tropical feeds H.V.R.G. Navaratne, M.N.M. Ibrahim and J.B. Schiere (Peradeniya, Sri Lanka) .....	209
Chemical and nutritional evaluation of airtight storage of high-moisture barley and high-moisture barley treated with lactobacilli or lactobacillii and yeast P. Åman, D. Pettersson and H. Graham (Uppsala, Sweden) .....	223
Chemical composition, digestibility in vitro and biodegradability of grass hays oven-treated with different amounts of ammonia V.C. Mason, J.E. Cook, M.S. Dhanoa, A.S. Keene, C.J. Hoadley and R.D. Hartley (Maidenhead, Gt. Britain) .....	237
Studies on ammonia treatment of wheat straw: effects of level of ammonia, moisture content, treatment time and temperature on straw composition and degradation in the rumen of sheep M. Schneider and G. Flachowsky (Jena, G.D.R.) .....	251
Evaluation of methods for calibrating in vitro digestibility estimates of ruminant feeds A. Genizi, A. Goldman, A. Yulzari and N.G. Seligman (Bet-Dagan, Israel) .....	265
Effect of variety of sorghum grain on digestion and availability of dry matter and starch in vitro M.N. Streeter, D.G. Wagner, C.A. Hibberd, E.D. Mitchell, Jr. and J.W. Oltjen (Stillwater, OK, U.S.A.) .....	279
Effect of graded levels of sorghum gluten meal on the performance of broiler chicks I.I. Hamid and E.A. El Zubeir (Khartoum North, Sudan) .....	289
Effects of fermented cassava peel meal on the performance of layers S.A. Osei, M. Asiamah and C.C. Atuahene (Kumasi, Ghana) .....	295
Gliciridia leaf meal as an ingredient in layer diets S.A. Osei, R.S. Opoku and C.C. Atuahene (Kumasi, Ghana) .....	303
Effects of extrusion of maize on ileal and faecal digestibility of nutrients and performance of young piglets A.F.B. van der Poel, W.A.A. van Stiphout, R. Bremmers and J. Huisman (Wageningen, The Netherlands) and L.A. den Hartog (Rosmalen, The Netherlands) .....	309
Effect of nutrient level and feed form on the performance of heavy breeder turkey toms W.H. Revington (Guelph, Ont., Canada) and E.T. Moran, Jr. (Auburn, AL, U.S.A.) .....	321
Urea molasses mineral blocks as a feed supplement: effect on growth and nutrient utilization in buffalo calves S.P. Tiwari, U.B. Singh and U.R. Mehra (Izatnagar, India) .....	333

**Book reviews**

Automation of feeding and milking.....	343
Evaluation of straws .....	345
Animal nutrition.....	348
Poultry nutrition.....	349
<b>Author Index</b> .....	<b>351</b>